

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

**Listing of Claims:**

**Claims 1-9 (Canceled).**

**Claim 10 (Currently Amended):** A proximity head for semiconductor wafer processing, comprising:

    a heating portion configured to control a temperature of a fluid liquid flowing therethrough;

    a sensor disposed within the proximity head for measuring the temperature of the fluid liquid flowing through the heating portion;

    a channel disposed in the heating portion, the channel being configured to guide the fluid liquid through the heating portion; and

    a bottom surface having at least one outlet port and at least one inlet port, the at least one outlet port being in fluid communication with the channel disposed in the heating portion, and the at least one outlet port and the at least one inlet port opening to a fluid liquid meniscus supported between the bottom surface of the proximity head and a surface of a semiconductor wafer.

**Claim 11 (Original):** The proximity head of claim 10, wherein the heating portion is comprised of silicon carbide and is coupled to a power source.

**Claim 12 (Original):** The proximity head of claim 10, wherein the heating portion is comprised of an insulating material having an electrically conductive material dispersed therein, the electrically conductive material being coupled to a power source.

**Claim 13 (Original):** The proximity head of claim 12, wherein the insulating material is comprised of a ceramic material.

**Claim 14 (Original):** The proximity head of claim 12, wherein the electrically conductive material comprises a wire.

**Claim 15 (Original):** The proximity head of claim 10, wherein the channel in the heating portion is a first channel having a first flow path and the heating portion further includes a second channel having a second flow path, wherein the first flow path and the second flow are separate.

**Claim 16 (Currently Amended):** The proximity head of claim 10, wherein the sensor is coupled to a controller, the controller being configured to control the temperature of the fluid liquid in the heating portion.

**Claim 17 (Currently Amended):** A semiconductor wafer processing system, comprising:

- a fluid liquid source;
- a proximity head in fluid communication with the fluid liquid source, the proximity head including:
  - a heating portion configured to control a temperature of a fluid liquid flowing therethrough,
  - a sensor disposed within the proximity head for measuring the temperature of the fluid liquid flowing through the heating portion,
  - a channel disposed in the heating portion, the channel being configured to guide the fluid liquid through the heating portion, and
  - a bottom surface having at least one outlet port and at least one inlet port, the at least one outlet port and the at least one inlet port being in fluid communication with the channel disposed in the heating portion, and the at least one outlet port opening to a fluid liquid meniscus supported between the bottom surface of the proximity head and a surface of a semiconductor wafer;
  - a first member coupled to the proximity head, the first member being configured to manipulate the proximity head; and
  - a second member configured to support a wafer, the second member being capable of placing the semiconductor wafer proximate to the bottom surface of the proximity head.

**Claim 18 (Original):** The semiconductor wafer processing system of claim 17, wherein the heating portion is comprised of silicon carbide and is coupled to a power source.

**Claim 19 (Original):** The semiconductor wafer processing system of claim 17, wherein the heating portion is comprised of an insulating material having an electrically conductive material dispersed therein, the electrically conductive material being coupled to a power source.

**Claim 20 (Original):** The semiconductor wafer processing system of claim 17, wherein the channel in the heating portion is a first channel having a first flow path and the heating portion further includes a second channel having a second flow path, wherein the first flow path and the second flow are separate.

**Claim 21 (Currently Amended):** The semiconductor wafer processing system of claim 17, wherein the sensor is coupled to a controller, the controller being configured to control the temperature of the ~~fluid~~ liquid in the heating portion.